



U.S. Army Corps of Engineers Engineer Research and Development Center Environmental Laboratory

Water Quality Research Program

Description of Technology

The U. S. Army Corps of Engineers (CE) Water Quality Research Program (WQRP) supports research relevant to water quality problems in all CE inland reservoir and waterway projects. The WQRP is conducting research to improve understanding of the fundamental processes affecting water quality and the biotic structure of aquatic systems. Assessment capabilities are being developed by identifying current advances in technology and utilizing this technology for managing CE water resource projects. Capabilities to accurately and efficiently integrate environmental and water quality considerations with other project purposes are being developed.

Benefits

The WQRP provides managers with cost-effective methods and guidance for solving problems related to CE project water quality. These include advanced techniques for assessment of water quality conditions, advanced capabilities for predicting non-point source runoff in the context of watershed land use, improved capabilities to evaluate options for managing water quality in a decision support framework, and capabilities for forecasting ecological conditions and implementing and assessing ecosystem management.

Significant Accomplishments

The WQRP Web site at <http://www.wes.army.mil/el/wq/wq.html> provides access to technical reports, technical notes, and information bulletins in Portable Document Format. In addition, the Web site provides access to:

A field user guide on a contaminant transport/fate model that provides a powerful tool to help CE projects meet responsibilities under the Clean Water Act.

Field user guidance on improved methods for water quality monitoring data collection, and techniques for collecting water information for incorporation in geographical assessments or as model input.

A sediment-water iron/manganese model that allows the CE to predict the impact of project operations on water bodies that are commonly impacted by iron and manganese concentrations.

Points of Contact

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